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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,527	11/09/2001	Francis Barany	19603/3357 (CRF D-1595G)	5780

7590

06/20/2003

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EXAMINER

PONNALURI, PADMASHRI

ART UNIT

PAPER NUMBER

1639

DATE MAILED: 06/20/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

*Restriction Purposes Only*

Application No.  
09/986,527

Applicant(s)  
Barany et al

Examiner  
Padmashri Ponnaluri

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1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-37 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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### DETAILED ACTION

1. This application is a continuation in part of US Patent application 08/794,851, which claims priority to a provisional application 60/011,359.
2. Claims 1-37 are currently pending in this application.

### *Election/Restriction*

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11, drawn to a composition for analyzing interactions between oligonucleotide targets and oligonucleotide probes comprising an array of oligonucleotide analogue probes coupled to a solid substrate, wherein oligonucleotide analogue **probes have similar hybridization stability across the array**, classified in class 435, subclass 6.
  - II. Claims 12-14, drawn to a composition for analyzing interactions between oligonucleotide targets and oligonucleotide probes comprising array of oligonucleotide probes hybridized to a complementary **oligonucleotide analogue targets**, classified in class 435, subclass 6.
  - III. Claims 15-24, drawn to a method of analyzing interactions between an oligonucleotide target and an oligonucleotide probe, classified in class 436, subclass 501.

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- IV. Claims 25-27, drawn to a method of detecting an oligonucleotide target, classified in class 435, subclass 6.
- V. Claims 28-32, drawn to a method of making an array of oligonucleotide probes, classified in class 436, subclass 518.
- VI. Claim 33, drawn to a composition for analyzing interactions between oligonucleotide targets and oligonucleotide probes comprising an array of oligonucleotide analogue probes coupled to a solid substrate, wherein oligonucleotide analogue probes have **uniform hybridization stability across the array**, classified in class 435, subclass 6.
- VII. Claim 34, drawn to a composition for analyzing interactions between oligonucleotide targets and oligonucleotide probes comprising an array of oligonucleotide probes hybridized to oligonucleotide analogue targets, wherein the analogue targets hybridize to the oligonucleotide probes **uniform hybridization conditions**, classified in class 435, subclass 6.
- VIII. Claim 35, drawn to a method for analyzing interactions between oligonucleotide targets and oligonucleotide probes, classified in class 435, subclass 6.
- IX. Claim 36, drawn to a method of detecting an oligonucleotide target, classified in class 435, subclass 6.
- X. Claim 37, drawn to a method of making an array of oligonucleotide probes, classified in class 436, subclass 518.

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- II. The inventions are distinct, each from the other because of the following reasons:
- a). Inventions of groups I-II, VI and VII are all drawn to different products. These distinct products are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). The different compositions differ in the reagents present and also the structure of the reagents are different. Thus, the compositions of each group are structurally and functionally distinct from each other, thus restriction between the compositions is proper.
  - b). Inventions of groups III-V, VIII-X are all drawn to different methods which are distinct from one another. The different methods are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). The different methods have different method steps and the use of different compositions and the result of the methods are different. Thus, restriction between the method groups is proper.
3. Inventions of groups I-II, VI-VII (products) and groups III, IV, VIII, IX (methods) are all drawn to different products and methods of use of the different products in different methods. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the different compositions are used in different methods. Thus, the restriction between the groups is proper.

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4. Should applicant traverse on the ground that the method inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the method inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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Even though some of the groups are classified in the same class/subclass, this has no effect on the non-patent literature search. Different inventions or groups would require completely different searches in non-patent databases, and there is no exception that the searches would be co-extensive. Therefore, these do not create an undue search burden, and restriction for examination purposes as indicated is proper.

6. This application contains claims directed to the following patentably distinct species of the claimed invention: Depending on the elected group applicants are requested to elect a single species for each of the following:

A) If Group I is elected, applicants are requested to elect a single species for each of the following,

a) oligonucleotide probe sequence;

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- b) length of probe sequence;
- c) oligonucleotide analogue probe sequence;
- d) oligonucleotide target;
- e) oligonucleotide analogue;
- f) single species of solid substrate.

B) If group II is elected, applicants are requested to elect a single species for each of the following:

- a) oligonucleotide probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue target sequence.

C) If group III is elected, applicants are requested to elect a single species for each of the following:

- a) oligonucleotide probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue probe sequence;
- d) oligonucleotide target;
- e) solid substrate;
- f) material of solid substrate
- g) reagents for synthesis of oligonucleotide probe analogues.

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D) If group IV is elected, applicants are requested to elect a single species for each of the following:

- a) oligonucleotide probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue target sequence;
- d) oligonucleotide target.

E) If group either V or group X elected, applicants are requested to elect a single species for each of the following:

- a) oligonucleotide analogue probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue;
- d) oligonucleotide target;
- e) a single species of solid substrate.

F) If group VI is elected, applicants are requested to elect a single species for each of the following:

- a) oligonucleotide probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue probe sequence;
- d) oligonucleotide analogue;
- e) oligonucleotide target



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f) a single species of solid substrate.

G) if group VII is elected, applicants are requested to a single a single species for each of the following:

- a) oligonucleotide probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue target sequence;
- d) oligonucleotide target;
- e) oligonucleotide analogue.

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H) If group either VIII -IX is elected, applicants are requested to elect a single species for each of the following:

- a) oligonucleotide probe sequence;
- b) length of probe sequence;
- c) oligonucleotide analogue probe sequence;
- d) oligonucleotide analogue;
- e) oligonucleotide target;
- f) a single species of solid substrate

For this response to be complete and for search purposes, applicants should provide the chemical structure of elected compounds ( or species), wherein each specific formula substituents of each of the above identified elected species are defined either by picture, or by expressing the species in terms of the variables of the formula.

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Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CAR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CAR 1.143).

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8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventor ship must be amended in compliance with 37 CAR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventor ship must be accompanied by a request under 37 CAR 1.48(b) and by the fee required under 37 CAR 1.17(I).

9. Applicant is required to reply to this restriction requirement within 30 days of mailing this action. See MPEP 809.2(a).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Ponnaluri whose telephone number is (703) 305-3884. The examiner is on ***Increased Flex Schedule*** and can normally be reached on Monday to Friday from 7.00 AM to 3.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang, can be reached on (703) 306-3217. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

P. Ponnaluri  
Primary Examiner  
Technology Center 1600  
Art Unit 1639  
18 June 2003

  
**PADMASHIRI PONNALURI**  
**PRIMARY EXAMINER**

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